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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,951	04/12/2004	Heiko Gottfried	251611US0X	2379

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EXAMINER

KILIMAN, LESZEK B

ART UNIT PAPER NUMBER

1773

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/821,951

Applicant(s)

GOTTFRIED ET AL.

Examiner

leszek b kiliman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 23-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 23-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshima'507 in view of Ritter'699, Kogoi'002 and Gottfried'767.

The Oshima'507 reference teaches that it is well known in the art to make and use composite powders having matrix particles and domains particles. The matrix is made of a metal oxide and domain particles are made of metal oxide. See Oshima'507, abstract, column 12, lines 35-67, column 13, lines 1-5, lines 29-67, column 14, lines 1-45, column 17, lines 1-67, claims.

The Oshima'507 does not specifically states that particles and of nanoscale. However, the average particle sizes include range from 0.001 to 0.3 micrometers which includes claimed particle ranges. 0.001 micrometer is equal to 1 nanometer. The Oshima'507 does not teach the claimed volume-specific surface.

However, the applied Kogoi'002 and Gottfried'767 teach that it is known in the art to use particles having claimed surface area. See column 4, lines 1-2 of Kogoi and abstract of Gottfried. It would have been obvious to one having ordinary skill in the art at the time of the invention to use teachings of Kogoi and Gottfried in the invention of Oshima, and optimize surface properties of the particles, since such would improve mechanical processing of aggregates.

Also, Ritter'699 specifically teaches that size of the particles is in the range of nanometers. It would have been obvious to optimize size of particles of Oshima'507 to include such nanoparticles of Ritter, since it would improve processability of the aggregates.

Oshima'507 teaches noble metal particles only in the matrix material. However, it would have been obvious to one having ordinary skill in the art to include such noble metals in the domain particles since such would improve compatibility of the matrix and domain particles.

Also, Oshima'507 teaches that more than one element may be used. See column 14, lines 1-35. It would have been obvious to optimize crystallinity since such would improve mechanical properties of the aggregates.

The Oshima'507 teaches that domains are enclosed by matrix.

The Oshima'507 teaches the weight of the domain particles within the claimed ranges. See column 17, lines 55-67.

The Oshima'507 teaches the claimed oxides of the matrix. See column 14, lines 1-25.

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Also, it would have been obvious to optimize composition of the composite powder, since such would improve mechanical, optical and magnetic properties.

The Ritter'699 teaches that it is known in the art to use domains made of iron particles. It would have been obvious to one having ordinary skill in the art to include iron and other metal oxides including Mn,Zn since such would improve magnetic properties of the composite particles in Oshima'507.

See Oshima'507, column 14, lines 25-50, column 17, lines 1-67 for remaining claims. .

The amendments and remarks filed by Applicants have been fully considered. The claims, however, remain unpatentable in view of the above grounds of rejections. Arguments submitted by applicants have not been found persuasive. The examiner believes that the rejections are still proper and are maintained.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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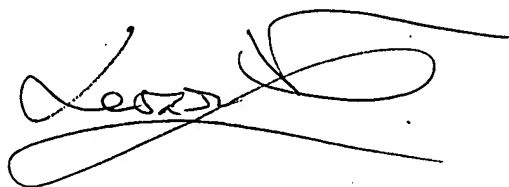
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to leszek b kiliman whose telephone number is 571-272-1509. The examiner can normally be reached on M-T, 6.30-5.00.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lk

A handwritten signature in black ink, appearing to read 'Leszek B. Kiliman', with a large, stylized flourish at the end.